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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: KATO, et al.

Application No.: TBD

Filed: March 10, 2004

For: VACUUM PROCESSING APPARATUS AND OPERATING  
METHOD THEREFOR

Expected  
Group Art Unit: 3749

Expected  
Examiner: P. Wilson

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 CFR § 1.97 AND § 1.98**

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

March 10, 2004

Sir:

Pursuant to Applicants' duty of disclosure, enclosed please find a List of documents cited in connection with prior applications of the above-identified application. The listed documents were cited in at least one of the following U.S. patent applications, for which benefit has been claimed under 35 USC 120 in the above-identified application:

- (1) Application No. 10/682,901, filed October 14, 2003;
- (2) Application No. 09/766,975, filed January 23, 2001, now U.S.

Patent No. 6,655,044, issued December 2, 2003;

- (3) Application No. 09/461,432, filed December 16, 1999, now U.S. Patent No. 6,330,755, issued December 18, 2001;
- (4) Application No. 09/177,495, filed October 23, 1998, now U.S. Patent No. 6,012,235, issued January 11, 2000;
- (5) Application No. 09/061,062, filed April 16, 1998, now U.S. Patent No. 5,950,330, issued September 14, 1999;
- (6) Application No. 07/751,951, filed August 29, 1991, now U.S. Patent No. 5,314,509, issued May 24, 1994;
- (7) Application No. 08/096,256, filed July 26, 1993, now U.S. Patent No. 5,349,762, issued September 27, 1994;
- (8) Application No. 08/443,039, filed May 17, 1995, now U.S. Patent No. 5,553,396, issued September 10, 1996;
- (9) Application No. 08/593,870, filed January 30, 1996, now U.S. Patent No. 5,661,913, issued September 2, 1997;
- (10) Application No. 08/302,443, filed September 9, 1994, now U.S. Patent No. 5,457,896, issued October 17, 1995; and
- (11) Application No. 08/882,731, filed June 26, 1997, now U.S. Patent No. 5,784,799, issued July 28, 1998.

In particular, note that each of these listed documents cited in connection with prior applications, was cited in Application No. 10/682,901, filed October 14, 2003.

The listed documents have been cited in connection with at least one prior application of the above-identified application for which priority has been claimed under 35 USC 120; accordingly, copies of the listed documents are not enclosed.

Of the listed documents, attention is particularly directed to U.S. Patent No. 4,923,584 and Japanese Patent Document No. 63-153270. Please note that a partial English translation of Japanese Patent Document No. 63-153270 has been submitted in prior applications of the above-identified application, for which priority has been claimed under 35 USC 120. In addition, a full English translation of Japanese Patent Document No. 63-153270 has previously been submitted in a prior application of the above-identified application being relied upon under 35 USC §120.

In addition, note the following comments concerning various of the listed documents which are not in English. JP No. 2-61064 corresponds to U.S. Patent No. 4,969,790 (also listed), and relates to a merry-go-round system. JP No. 1-310553 relates to a single chamber. JP No. 1-251734 relates to a vacuum cassette. JP No. 62-44571 relates to an ion implantor. JP No. 62-50463 relates to a sputtering device; and JP No. 2-106037 relates to a single chamber device. JP No. 57-29577 relates to a sputtering device. In "Semiconductor Equipment Association of Japan", a load lock chamber is defined.

This Information Disclosure Statement is being submitted concurrently with the filing of the above-identified application. Accordingly, it is respectfully submitted that requirements of 37 CFR 1.97(b) are satisfied.

To the extent that the enclosed documents are not in English, it is respectfully submitted that the requirements of 37 CFR 1.98(a)(3) are satisfied by the previously submitted abstracts of various of the documents not in English, partial English translations of various of the documents not in English, the foregoing comments, and the submitted full English translation of JP No. 63-153270.

In view of all of the foregoing, it is respectfully submitted that all applicable requirements of 37 CFR 1.97 and 1.98 have been satisfied, in connection with the documents on the enclosed List. Accordingly, consideration of the listed documents, upon examination of the above-identified application, is respectfully requested.

To the extent necessary, Applicants petition for an extension of time under 37 CFR § 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to the Deposit Account No. 01-2135 (Case No. 503.30414C55) and please credit any excess fees to such Deposit Account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP



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WIS/dmw

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

<b>FORM PTO-1449 U.S. Department of Commerce</b> (Rev. 4/92) <b>Patent and Trademark Office</b>								ATTY. DOCKET NO.	APPLICATION NO.
								503.30414C55	TBD
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use several sheets if necessary)								APPLICANT	
								KATO, et al.	
								FILING DATE	EXPECTED GROUP
								March 10, 2004	3749

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER							DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
		3	6	5	2	4	4	4	2-72	Lester, et al.			
		3	9	8	1	7	9	1	9-76	Rosvold			
		4	2	2	6	8	9	7	10-80	Coleman			
		4	3	1	1	4	2	7	1-82	Coad, et al.			
		4	3	1	3	8	1	5	2-82	Graves, Jr. et al.			
		4	4	4	9	8	8	5	5-84	Hertel, et al.			
		4	4	5	7	6	6	1	7-84	Flint, et al.			
		4	5	3	4	3	1	4	8-85	Ackley			
		4	5	6	3	2	4	0	1-86	Shibata, et al.			
		4	6	3	4	3	3	1	1-87	Hertel			
		4	7	0	5	9	5	1	11-87	Layman, et al.			

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER							DATE	COUNTRY	CLASS	SUBCL ASS	TRANSLATION	
													YES NO	
		6	2	8	9	8	8	1	4-87	Japan				X
6	2	2	0	7	8	6	6	9-87	Japan					X
		1	3	1	9	7	0	2-89	Japan					X
		1	3	1	9	7	1	2-89	Japan					X
		6	3	6	5	8	2	1-89	Japan					X
1	1	3	5	0	1	5	5-89		Japan					X

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

	R.P.H. Chang, "Multipurpose plasma reactor for materials research and processing", J. Vac. Sci. Technol., Vol. 14, No. 1, Jan./Feb. 1977, pages 278-280.
	Semiconductor Equipment Association of Japan, "Terminological Dictionary of Semiconductor Equipment", front, table, page 183, back, Nov. 20, 1987.
	Semiconductor Equipment Association of Japan, "Semiconductor News", Vol. 4, pp. 38-43, April 10, 1987 (w/ translation).

EXAMINER \_\_\_\_\_ DATE CONSIDERED \_\_\_\_\_

EXAMINER: Initial if citation is considered, draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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								APPLICANT KATO, et al.	
<b>FILING DATE</b> March 10, 2004				<b>EXPECTED GROUP</b> 3749					

**U.S. PATENT DOCUMENTS**

EXAMINE R INITIAL		DOCUMENT NUMBER							DATE	NAME	CLAS S	SUBCL ASS	FILING DATE IF APPROPRIATE
		4	7	1	5	7	6	4	12-87	Hutchinson			
		4	8	5	1	1	0	1	7-89	Hutchinson			
		4	8	3	6	7	3	3	6-89	Hertel, et al.			
		4	8	3	6	9	0	5	6-89	Davis, et al.			
		4	8	9	5	1	0	7	1-90	Yano, et al.			
		4	9	0	2	9	3	4	2-90	Miyamura, et al.			
		4	9	0	3	9	3	7	2-90	Jakuniec, et al.			
		4	9	0	9	6	9	5	3-90	Hurwitt, et al.			
		4	9	1	1	5	9	7	3-90	Maydan, et al.			
		4	9	1	5	5	6	4	4-90	Eror, et al.			
		4	9	1	7	5	5	6	4-90	Stark, et al.			

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER							DATE	COUNTRY	CLAS S	SUBCL ASS	TRANSLATION
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		6	4	1	2	0	3	7	1-89	Japan			X
			2	6	1	0	6	4	3-90	Japan			X
		1	3	1	0	5	5	3	12-89	Japan			X
		1	2	5	1	7	3	4	10-89	Japan			X
		6	2	4	4	5	7	1	2-87	Japan			X

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**


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<b>FORM PTB-1449</b> U.S. Department of Commerce (Rev. 4/92) Patent and Trademark Office	ATTY. DOCKET NO. <b>520.30414C55</b>	APPLICATION NO. <b>TBD</b>
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>		
(Use several sheets if necessary)		
	APPLICANT <b>KATO, et al.</b>	
	Filed: <b>03/10/04</b>	EXPECTED GROUP <b>3749</b>

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FORM PTO-1449 U.S. Department of Commerce  
(Rev. 4/92) Patent and Trademark Office

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use several sheets if necessary)

ATTY. DOCKET NO.  
520.30414C55

APPLICATION NO.  
**TBD**

APPLICANT  
**KATO, et al.**

Filed:  
03/10/04

EXPECTED GROUP  
**3749**

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER							DATE	NAME	CLASS	SUBCLAS S	FILING DATE IF APPROPRIATE
		4	9	2	4	8	9	0	5-90	Giles, et al.	134	902	
		4	9	3	6	3	2	9	6-90	Michael, et al.	134	902	
		5	0	1	4	2	1	7	5-91	Savage	364	550	
		5	0	0	7	9	8	1	4-91	Kawasaki, et al.			
		4	1	3	8	3	0	6	2-79	Niwa	156	345	
		4	5	7	6	6	9	8	3-86	Gallagher, et al.	204	192	
		5	0	1	4	2	1	7	5-91	Savage	364	498	
		5	3	5	1	4	1	5	10-94	Brooks, et al.	34	389	
		4	6	4	3	6	2	9	2-87	Takahashi, et al.	414	331	
		4	8	2	4	3	0	9	4-89	Kakehi, et al.	414	217	
		4	9	5	1	6	0	1	8-90	Maydan, et al.	414	217K	

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER							DATE	COUNTRY	CLASS	SUBCLAS S	TRANSLATION	
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		2	0	3	8	1	3	3	8	5-90	Europe			
		6	4	1	2	0	3	7	1-89	Japan				
		4	3	0	5	4	9	4-92		Japan				
		8	7	0	7	3	0	9	5-87	PCT Int'l Appl.				
		2	9	4	6	6	4	7	4-90	Japan				
		6	0	2	4	6	6	3	5	12-85	Japan			

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								APPLICANT <b>KATO, et al.</b>	
								Filed: <b>03/10/04</b>	EXPECTED GROUP <b>3749</b>

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EXAMINER INITIAL	DOCUMENT NUMBER							DATE	NAME	CLASS	SUBCLAS S	FILING DATE IF APPROPRIATE
	5	0	0	7	9	8	1	4-91	Kawasaki, et al.			
	5	2	9	2	3	9	3	3-94	Maydan, et al.			
	5	4	5	2	1	6	6	9-95	Aylwin, et al.			
	5	5	0	4	0	3	3	4-96	Bajor, et al.			
	5	5	0	4	3	4	7	4-96	Jovanovic, et al.			
	5	5	5	6	7	1	4	9-96	Fukuyama, et al.			
	5	6	5	1	8	5	8	7-97	Lin			
	5	6	7	5	4	6	1	10-97	Aylwin, et al.			
	4	3	1	3	7	8	3	2-82	Davies, et al.			
	4	3	1	8	7	6	7	3-82	Hijikata, et al.			
	4	9	6	9	7	9	0	11-90	Petz, et al.			

**FOREIGN PATENT DOCUMENTS**

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		5	7	2	9	5	7	7	2-82	Japan					X
		6	3	1	5	3	2	7	0	6-88	Japan				X

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## U.S. PATENT DOCUMENTS

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## OTHER DOCUMENTS \* (Including Author, Title, Date, Pertinent Pages, Etc.)

AU	JP patent No. 3145375, Notice of Reasons for Revocation 12-18-01 (TR)
AV	JP patent No. 3147230, Notice of Reasons for Revocation 12-18-01 (TR)
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Examiner

Date Considered

\* PTR (partial translation) - FTR (full translation) - ABS (abstract)

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**OTHER DOCUMENTS \* (Including Author, Title, Date, Pertinent Pages, Etc.)**

AU	KR application No. 46756/98, Preliminary Notice of Ground(s) for Rejection 1-20-99 (TR)
AV	KR application No. 212874, 12-22-00, Notice of Decision on Opposition to the Granted Patent
AW	KR application No. 46757/98, Preliminary Notice of Ground(s) for Rejection 1-20-99 (TR)
AX	KR application No. 212819, 12-22-00, Notice of Decision on Opposition to the Granted Patent (TR)
AY	JP patent No. 3145359, Notice of Reasons for Revocation 12-18-01 (TR)
AZ	JP patent No. 3145375, Notice of Reasons for Revocation 12-18-01 (TR)

Examiner	Date Considered

\* PTR (partial translation) - FTR (full translation) - ABS (abstract)

Form PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DKT. NO. 520.30414C55	SERIAL NO. TBD
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		Filed: 03/10/04	GROUP 3749	

## U.S. PATENT DOCUMENTS

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## FOREIGN PATENT DOCUMENTS \*

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AM							
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## OTHER DOCUMENTS \* (Including Author, Title, Date, Pertinent Pages, Etc.)

AU	EP97111628, Office action 6-2001		
AV	EP98106162, Office action 11-2000		
AW	EP98106162, Office action 6-2001		
AX	KR application No. 14984791, Preliminary Notice of Ground(s) for Rejection (TR)		
AY	KR application No. 184682-00-00 Notice of Decision on Opposition to the Granted Patent 10-4-2000 (TR)		
AZ	KR application No. 184682, Trial Decision 8-1-00 (TR)		

Examiner	Date Considered
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\* PTR (partial translation) - FTR (full translation) - ABS (abstract)

Form PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DKT. NO. 520.30414C55	SERIAL NO. TBD
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <small>(Use several sheets if necessary)</small>		APPLICANT KATO, et al.	
		Filed: 03/10/04	GROUP 3749

**U.S. PATENT DOCUMENTS**

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						Yes	No
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**OTHER DOCUMENTS \* (Including Author, Title, Date, Pertinent Pages, Etc.)**

AU	EP91307625, Summons to attend oral proceedings 12-9-99		
AV	EP91307625, Communication of a notice of opposition 11-19-98		
AW	EP91307625, Interlocutory decision in Opposition proceeding, 5-16-00		
AX	EP91307625, Minutes of the oral proceedings, 3-9-00		
AY	EP97111628, Office action 12-1999		
AZ	EP97111628, Office action 11-2000		

Examiner	Date Considered

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Form PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DKT. NO. 520.30414C55'	SERIAL NO. TBD
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		Filed: D3/10/04	GROUP 3749	

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						Yes
AM						No
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## OTHER DOCUMENTS \* (Including Author, Title, Date, Pertinent Pages, Etc.)

AU	JP application No. 11-001263, Notification of Reasons for Refusal 2-2-00 (TR)
AV	JP application No. 2000-05449, Notification of Reasons for Refusal 9-6-00 (TR)
AW	JP application No. 2000-054450, Notification of Reasons for Refusal 9-6-00 (TR)
AX	JP application No. 2000-054451, Notification of Reasons for Refusal 9-6-00 (TR)
AY	JP application No. 2000-054452, Notification of Reasons for Refusal 9-6-00 (TR)
AZ	EP91307625, Office Action 10-11-93

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AM	2-224242	9-6-90	Japan			ABS	
AN	2-224242	9-6-90	Japan			PTR	
AO	58-108641	6-28-83	Japan			ABS	
AP	1-120811	5-12-89	Japan			ABS	
AQ	61-250185	11-7-86	Japan			ABS	
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AS							
AT							

## OTHER DOCUMENTS \* (Including Author, Title, Date, Pertinent Pages, Etc.)

AU	JP patent No. 2816139, Notice of Reasons for Revocation 11-21-99 (TR)
AV	Official Decision on Opposition to Grant of Patent 1999-71584 1-12-01 (TR)
AW	JP application No. 9-329873, Notification of Reasons for Refusal 7-14-98 (TR)
AX	JP application No. 9-329873, Notification of Reasons for Refusal 11-10-98 (TR)
AY	JP patent No. 2942527, Notice of Reasons for Revocation 6-27-00 (TR)
AZ	Decision on Opposition to the Grant of a Patent 2000-70844 1-12-01 (TR)

Examiner

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Form PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DKT. NO.	SERIAL NO.
			520.30415C55,	TBD
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use several sheets if necessary)			APPLICANT	
			KATO, et al.	
			Filed:	GROUP
			03/10/04	3749

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